

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/987,669

REMARKS

Applicant thanks the Examiner for acknowledging his claim to priority under 35 U.S.C. § 119, and receipt of a certified copy of the priority document.

Applicant also thanks the Examiner for acknowledging acceptance of the drawings filed on November 15, 2001.

The Abstract is objected to because of words "said" used therein. Applicant has amended the Abstract.

Claims 1-27 are all the claims pending in the application.

Claims 1-3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over USP 6,519,457 to Jiang in view of USP 6,510,146 to Korpela. Applicant respectfully traverses these rejections, and requests reconsideration and allowance of the pending claims in view of the following arguments.

Claim 1 recites a method for intersystem transfer of calls from a first cellular mobile radio system to a second cellular mobile radio system, wherein adjoining cell information relating to the second system is signaled to a serving controller of the first system by at least one of the first system's drift controllers controlling at least one serving cell belonging to the first system and having at least one adjoining cell belonging to the second system.

In Fig. 4 of the present application, UE represents a user equipment; SRNC represents a serving controller of a Universal Mobile Telecommunication System (UMTS); and DRNC represents a drift controller controlling a cell of the UMTS network, which is added by the SRNC according to radio measurements reported by the UE and has an adjoining Global System

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/987,669

for Mobile communication (GSM) cell. The DRNC transmits to the SRNC a message M4 containing information relating to the GSM cell. Accordingly, an intersystem handover from the UMTS system to the GSM system is accomplished without adapting the base stations of the GSM system, situated at the boundary with the UMTS system, to generate pilot signals as if the GSM base stations are UMTS base stations.

The Examiner has agreed that Jiang fails to teach the handover between different systems, “wherein adjoining cell information belonging to the first system and having at least one adjoining cell belonging to the second system.” However, the Examiner has asserted that Korpela teaches the missed features. The Examiner then combined Jiang and Korpela and rejected claims of the present application. Applicant respectfully disagrees, and asserts that the Examiner’s rejections are improper.

In the invention of claim 1, adjoining cell information relating to the second system is signaled to the serving controller of the first system by at least one drift controller controlling at least one serving cell belonging to the first system and having at least one adjoining cell belonging to the second system. The Examiner appears to have ignored the underlined part of the above language of claim 1. In claim 1, it is the at least one serving cell, instead of the adjoining cell information, that belongs to the first system and has at least one adjoining cell belonging to the second system.

Second, even if the Examiner has characterized the claimed invention and the cited references correctly, the Examiner’s combination of cited references is improper.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/987,669

Jiang is about handoff between base stations within a CDMA system, and fails to teach intersystem transfer of calls or a need thereof. Jiang's purpose is to reduce the number of steps or the time of a handoff. Jiang provides a method for establishing a soft handoff, wherein a direct base station to base station communication link is provided to bypass message transmissions to a mobile switching center (MSC), and to facilitate communications among base station equipment from different manufacturers.

As shown in Fig. 3 of Jiang, a mobile station (MS) 142 is receiving pilot signals from a transmitter 162 controlled by a base station (BS) 144 and pilot signals from a transmitter 136 controlled by a base station 118, and is moving in the direction of a cell 164. An interconnection function (ICF) 124 converts a pilot strength measurement message from the mobile station 142 to a standardized protocol as a handoff request, and sends the handoff request to an ICF block 146 of the target base station 144 via an enhanced communication link 160. A handoff request acknowledge message is returned from the ICF 146 to the ICF 124 via the enhanced communication link 160. The ICF 124 also sends a signaling message to instruct a channel element 152 in the target base station 144 to commence sending forward traffic frames from the transmitter 162 to the mobile station 142. Consequently, the MSC 110 is bypassed during the handoff.

As the Examiner has agreed, Jiang fails to teach the handover between different systems. Jiang is related to soft handoffs (Jiang, col. 1, lines 14-16). It is stated clearly in Jiang that only code division multiple access (CDMA) wireless communication systems are capable of accomplishing soft handoffs. Accordingly, the handoff in Jiang is within a CDMA system.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/987,669

Furthermore, in Jiang, a handoff between source and target base stations controlled by a single CDMA MSC is termed as an "intra-system handoff" (Jiang, col. 6, lines 10-15), and a handoff between source and target base stations controlled by two different CDMA MSCs 70 and 72 is termed as an "inter-system handoff" (Jiang, col. 7, lines 24-26). Thus, the "system" in Jiang actually refers to equipment controlled by one CDMA MSC, and Jiang only talks about handoff within a CDMA system, instead of handoff between different kinds of cellular mobile radio systems.

However, in the present application, the first cellular mobile radio system (such as a UMTS system) operates according to a different specification from the second cellular mobile radio system (such as a GSM system). This has now been emphasized by a clarifying amendment to the independent claims. Jiang fails to teach or suggest the second cellular mobile radio system or the handoff between different kinds of cellular mobile radio systems. Further, Jiang shows no need for handoff between different kinds of cellular mobile radio systems, and can not be used for handoff between different kinds of cellular mobile radio systems.

Korpela is related to inter-system handoff, but fails to teach or suggest the cell controlled by the recited drift controller. Korpela provides a base station of a cellular mobile radio system which creates a message containing information about neighboring cells and transmits the message to the mobile station. Fig. 2 illustrates a cellular mobile radio system to which the Korpela method can be applied. As shown, cells 21a, 22a, 23a, 24a, 25a and 26a of base stations 21, 22, 23, 24, 25 and 26 are partially or entirely overlapping. Cells 21a and 22a are macrocells of a second generation telecommunication system, such as GSM, and cells 23a, 24a, 25a, and

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/987,669

26a are picocells forming a third generation telecommunication network, such as UMTS network. A base station, as the one shown in Fig. 5a, collects information about neighboring cells, creates a message containing information about the neighboring cells, and transmits the message to a mobile station. Thus, Korpela fails to teach or suggest signaling adjoining cell information relating to the second system to a serving controller of the first system via at least one drift controller controlling at least one serving cell belonging to the first system. In other words, the invention of claim 1 involves: (1) a serving controller of the first system, (2) a drift controller of the first system, (3) a serving cell controlled by the drift controller of the first system, and (4) an adjoining cell of the second system. The adjoining cell information is signaled to the serving controller via the cell controlled by the drift controller. The base station in Korpela transmits neighboring cell information to a mobile station directly. Korpela does not teach or suggest or need the cell controlled by the recited drift controller.

Because Jiang does not need a second cellular mobile radio system or handoff between different kinds of cellular mobile radio systems, and Korpela does not need the cell controlled by the recited drift controller, there is no suggestion or motivation for a skilled artisan to combine Jiang and Korpela.

In addition, Jiang is applicable to a CDMA system only, and the base station in Korpela sends information about neighboring cells to a mobile station directly, without using the cell controlled by the recited drift controller. Even if a skilled artisan were to combine Jiang and Korpela, he/she has to either make the CDMA system of Jiang to be compatible to a second

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/987,669

cellular mobile radio system, or to create the cell controlled by the drift controller in Korpela.

There is no reasonable expectation of success.

Moreover, in the invention of claim 1, adjoining cell information is signaled to the service controller by at least one drift controller. The Examiner has asserted that Jiang teaches this feature, referring to col. 4, line 57 to col. 5, line 14; and col. 8, line 23-39 of Jiang.

Applicant disagrees. As discussed above, Jiang only talks about handoff within a CDMA system. Jiang fails to teach or suggest the adjoining cell, the adjoining cell information, and the signaling of the adjoining cell information to the service controller by at least one drift controller. The parts of Jiang referred to by the Examiner only teach that signaling messages are exchanged on an "enhanced communication link" between controllers, but fails to teach any signaling message including adjoining cell information.

Therefore, Applicant respectfully submits that claim 1 and its dependent claims 4-10 and 25-27 are patentable.

Claims 2 and 3 recite a cell controlled by a drift controller and a system different from the first cellular mobile radio system. Thus, claims 2 and 3 and their dependent claims 11-24 are patentable for the same reasons as claim 1.

The Examiner did not characterize the claims and the cited references correctly in the Office Action. Thus, if the Examiner is to issue a second Office Action, Applicant requests the Examiner not to make the second Office Action final.

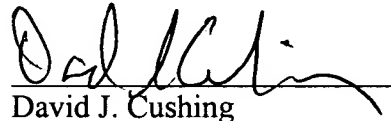
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/987,669

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



David J. Cushing
Registration No. 28703

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON DC OFFICE

23493

CUSTOMER NUMBER

Date: November 24, 2004